

# M-CYCLOSE® rABS 320 RC82 IM gr

## Preliminary technical description

### Product description

M-CYCLOSE® rABS 320 RC82 IM gr:	PCR ABS compound for injection moulding
Applications:	Technical parts etc.
Suitable for:	Injection moulded parts with good flowability and impact resistance
Recyclate source:	Fridges from EU collection and sorting system

### Properties (development stage – adjustment during upscaling possible)

	Standard	Unit	rABS 320 RC82 IM gr
<b>Recycling content</b>	-	%	82
<b>Appearance</b>	-	-	light grey
<b>MVR (220 °C/10 kg)</b>	ISO 1133	cm <sup>3</sup> /10 min	32
<b>Density</b>	ISO 1183	g/cm <sup>3</sup>	1.06
<b>Tensile modulus (1 mm/min)</b>	ISO 527-1/-2	MPa	2,000
<b>Yield strength (50 mm/min)</b>	ISO 527-1/-2	MPa	42
<b>Strain at yield (50 mm/min)</b>	ISO 527-1/-2	%	2.8
<b>Stress at break (50 mm/min)</b>	ISO 527-1/-2	MPa	33
<b>Strain at break (50 mm/min)</b>	ISO 527-1/-2	%	7
<b>Charpy unnotched impact strength (23°C)</b>	ISO 179-1/1eU	kJ/m <sup>2</sup>	62
<b>Charpy notched impact strength (23°C)</b>	ISO 179-1/1eA	kJ/m <sup>2</sup>	15
<b>Heat distortion Temperature, HDT/B</b>	ISO 75/B	°C	88

The information given here is only valid for M-CYCLOSE® grades in their original packaging, sold by BIO-FED® and/or its authorized partners. If M-CYCLOSE® grades are mixed in any capacity with foreign material, beside masterbatches recommended by BIO-FED®, BIO-FED® declines any further responsibility. M-CYCLOSE® grades shall be stored in dry, closed rooms in closed packaging in original state. For keeping the product properties, the material must be protected against direct sun and the temperature must not exceed 50 °C at any time during transport and storage. M-CYCLOSE® grades have a remaining shelf life of twelve (12) months at room temperature (23 °C) from the delivery date. We recommend that products made of M-CYCLOSE® grades shall be stored under same conditions. Please note that the use of M-CYCLOSE® might influence the mechanical and/or optical properties of the final part.

The information contained herein is based on our current knowledge and experience. A legally binding promise of certain characteristics or suitability for a concrete individual case cannot be derived from this information. The information supplied here is not intended to release processors and users from the responsibility of carrying out their own tests and inspections in each concrete individual case. BIO-FED®, M-VERA®, M-BIOBASE®, M-CYCLOSE®, AF-Eco®, AF-CirColor®, AF-CirCarbon® and AF-CirComplex® are registered brands of AKRO-PLASTIC GmbH.



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## Preliminary processing guide

### Processing recommendations

#### Safety precautions:

- Processing at a melt temperature not higher than 250 °C
- Processing with adequate ventilation

#### Handling:

- Keep package sealed until use
- Reseal opened package of the M-CYCLOSE® product directly after use

#### Drying:

- This M-CYCLOSE® product should be dried at 80 °C for 2-6 h by using a vacuum dryer or purging with dry air (dew point -35 °C)
- Recommended humidity below 0.05 %

#### Delivery & storage:

- Supply in 25 kg foil-aluminium bags or 1 ton octabin with PE-inliner or BB
- To be stored in dry place, protected from heat and direct sun radiation

#### Start-up:

- Ensure that the barrel and screw (and hot runner, if applicable) are clean
- Change the temperature to recommended settings
- Start transition while purging the screw, when the temperatures are within 10 °C of desired range

#### Equipment:

- M-CYCLOSE® grades are designed for standard equipment

#### Interruption & shut-down:

- Never leave M-CYCLOSE® product in the extruder for a longer period, e.g. over night
- By interruption for a considerable time, empty the barrel and reduce temperature by 50 °C (Please, do not forget to increase afterwards.)

### Processing temperatures (as indication)

Grade	Mould temp.	Nozzle	Zone 3	Zone 2	Zone 1
rABS 320 RC82 IM gr	50-70 °C	240-220 °C	230-210 °C	230-210 °C	220-200 °C

